Two types of neuter: Second-conjunct agreement in the presence of '5 and ups'

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Introduction: First conjunct agreement is a common phenomenon in natural languages, found in cases when the subject follows the verb and in which the verb agrees with the closest conjunct. Extant analyses, e.g. Citko 2004, makes reference to the structure of ConjP, in which the first conjunct occupies the specifier and the second the complement position, making the first conjunct accessible for agreement with the verb and the second conjunct too far away. Such an analysis predicts that one should not find second conjunct agreement even when the subject is preverbal. Although much less common, second conjunct agreement with preverbal subjects exists in Slovenian, Serbo-Croatian, and Ndebele (Moosally 1994, Marušič, Nevins & Saksida 2007 [MNS], Bošković 2008 etc.), as in (1/2).

According to MNS, Last conjunct agreement (LastCA) arises because only number can be computed at the level of the entire coordination (call this Computation-by-ConjP). Unlike for number, there's no way to say what is the gender of the entire coordinated subject. Therefore the verb must search for gender separately (through a second instance of Agree) within the ConjP, and when doing so it may resort to the precedence relation rather than to dominance. Under this implementation, there can be no bona fide last conjunct agreement (i.e. resulting in agreement with the furthest conjunct when the conjunction is postverbal), a fact experimentally confirmed in Marušič, Nevins and Badecker 2008. Rather, last conjunct agreement in preverbal conjuncts is the result of a linearly-computed closest-conjunct agreement within the ConjP projection.

Numerals 5 & up: However, many Slavic languages exhibit a further complication in the noun phrases. Noun phrases with numerals higher than 5 (henceforth 5&Ups) require the noun to be in the genitive plural. In Slovenian, such noun phrases always trigger neuter singular agreement on the verb, (3)-(4). Surprisingly, even when such noun phrases are conjoined, the agreement must remain singular, (5) (this fact reported in Franks 1994). This is entirely unexpected when comparing such structures to other conjoined singular noun phrases, which without exception trigger dual or plural agreement, (6). In other words, the neuter singular of a true neuter noun such as *teleta* 'calf' does not interact in a conjunct in the same way as the default neuter singular of 5&Ups. This calls for a distinction between inherent neuter (specified on a noun such as *teleta*) and neuter as the result of lack of gender on the head of NP, as in 5&Ups, as discussed below.

5&Ups inside conjunctions: Most interestingly, combining a 5&Up with a regular plural noun phrase yields the following pattern. When the closer conjunct is a regular plural nominal, agreement is plural (in the gender of the closest nominal). When the closer nominal phrase is 5&Up, agreement is singular, (7)-(8). Plural agreement is impossible if the closest noun phrase is 5&Up, (9). The novel empirical finding is the following: *whenever there is a 5&Up in the conjunct, agreement is always with the Last Conjunct.*

Not clausal conjunction: These cases could potentially be analyzed with clausal conjunction (Aoun, Benmamoun, and Sportiche 1994), but examples such as (10) and (11) argue against such an analysis. If this were a case of clausal conjunction where each clause would have parts of the subject, it should not be possible to interpret the adverb 'together' refering to the entire coordinated subject, (10), and the coordinated subject should not be capable of controling the subject of the embedded non-finite clause, which is again interpreted as the entire coordinated subject.

Proposal: Our proposal is that Slovenian 5&Ups lack a D layer (see Pereltsvaig 2006 on Russian nonagreeing 'small nominals'). Crucially, we claim that ConjP's computation of its number (and by extension, all agreement) requires a D layer on its arguments. In the absence of a D layer on *either* of ConjP's daughters, Number Computation-by-Conj fails, and the mechanism of Linear Conjunct Agreement becomes the only grammatical option, for gender as well as number. The ordinary 'last resort' of masculine agreement -- typically possible as an option in examples such as (1) and (2) -- is unavailable in examples like (7), as shown in (12). While masculine is available if number computation-by-Conj succeeds and only gender is needed, in (7)-(9), gender is not the only unvalued feature, and as there is no default value for number, the only grammatical option is full agreement with the closest conjunct, *even when one of the two conjuncts is masculine*. 5&Ups, lacking a D layer, bear no phi-features at all, and when they are the closest conjunct, the maximally unmarked number and gender features of neuter singular are inserted by morphological default. This finding is consistent with the account of Number Computation-by-Conj of MNS; when this mechanism fails, both number & gender seek the closest conjunct.

(1)　　[Krave　in　teleta]　so odšla /　*odšle　　na pašo.　　　　　　　　from MNS
　　　　[cowF.PL and calfN.PL] aux wentN.PL wentF.PL on grazing 'Cows and calves went grazing'
(2)　　[Teleta　in　krave]　so odšle /　*odšla　　na pašo.　　　　　　　　from MNS
　　　　[calfN.PL and cowF.PL] aux wentF.PL wentN.PL on grazing 'Calves and cows went grazing'
(3) a.　(Tistih) 10 fantov　　**je**　　　brcal**o**　　　žogo po　　igrišču.
　　　　those　10 boys.genPL　AUX.SG kicked.NeutSG ball　around playground
　　b.　(Tistih) 6 deklic　　**je**　　　nabiral**o**　　rožice po　　travniku.
　　　　those　6 girls.genPL　AUX.SG picked.NeutSG flowers around meadow
(4) a.　*Tistih 10 fantov　　**so**　　　brcal**i**　　　žogo po　　igrišču.
　　　　those 10 boys.genPL AUX.PL　kicked.MascPL ball　around　playground
　　b.　*Tistih 6 deklic　　**so**　　　nabiral**e**　　rožice po　　travniku.
　　　　Those 6 girls.genPL　AUX.PL picked.FemPL flowers around meadow
(5) a.　Šest fantov　　in šest deklet　　**je**　　　brcal**o**　　　žogo po igrišču.
　　　　6　boys.genPL and 6　girls.genPL AUX.SG kicked.NeutSG ball　around playgr.
　　b.　*Šest fantov　　in šest deklet　　**so**　　　brcal**i**　　　žogo po　　igrišču.
　　　　6　boys.genPL and 6　girls.genPL AUX.PL kicked.MascPL ball　around playgr.
(6)　　Fant in dekle sta　　brcala　　/ *je　　brcal　　/ *brcala　　žogo.
　　　　boy and girl aux.Du kickedM.Du　aux.Sg kickedM.Sg　kickedF.Sg　ball
　　　　'A boy and a girl were kicking a ball.'
(7) a.　Pet stanovanj　in vse hiše　　　**so**　　　se　prodal**e**　　zelo poceni.
　　　　5　flats.genPL and all houses.Fem AUX.PL refl sold.FemPL very cheaply
　　b.　Zelo poceni so　　　se prodala　　vsa stanovanja　　in pet hiš**.**
　　　　very cheaply AUX.PL refl sold.NeutPL all apartments.Neut and 5　houses.genPL
(8) a.　Vse hiše　　　in pet stanovanj　　　se　**je**　　　prodal**o**　　zelo poceni.
　　　　all　houses.F and 5　apartments.genPL refl AUX.SG sold.NeutSG very cheaply
　　b.　Zelo poceni se　**je**　　　prodal**o**　　pet hiš　　　in vsa stanovanja**.**
　　　　very cheaply refl AUX.SG sold.NeutSG 5　houses.genPL and all　apartments.Neut
(9)　　*Vse hiše　　　in pet stanovanj　　　so　　　se prodali　　zelo poceni.
　　　　all　houses.F and 5　apartments.genPL AUX.PL refl sold.MascPL very cheaply
(10) a.　5 koz　　　in vse krave　so　　　se pasle　　　skupaj.
　　　　5 goats.genPL and all　cows.F AUX.PL refl grazed.FemPL together
　　b.　vse krave in　5 koz　　　se je　　　paslo　　　skupaj.
　　　　all　cows.F and 5 goatsF.genPL refl AUX.SG grazed.NeutSG together
　　　　»All cows and 5 goats grazed together.«
(11) a.　Vse tajnice　in vseh osem čistilk se je　　　odločilo　　　srečati se.
　　　　all　secretaries and all　eight janitors refl aux.sg decided.neutSG meet.inf refl
　　b.　Vseh osem čistilk　in vse tajnice　　so　　se odločile　　　srečati se.
　　　　all　eigth　janitors and all　secretaries aux.pl refl decided.neutpl meet.inf refl
　　　　»All secreteries and all eight janitors decided to meet.«
(12) a.*Pet stanovanj　in vse hiše　　　**so**　　se prodal**i**　　zelo poceni.
　　　　5　flats.genPL and all houses.Fem AUX.PL refl sold.MascPL very cheaply
　　b.* Pet zemljevidov　in vse hiše　　　**so**　　ležal**i**　　　na mizi.
　　　　5　maps.MgenPL and all　houses.Fem AUX.PL laid.MascPL on table

Aoun, J., E. Benmamoun, & D. Sportiche. 1994. Agreement, word order, and conjunction in some
　　varieties of Arabic. Linguistic Inquiry 25: 195-220.
Bošković, Ž. 2008. Unifying first and last conjunct agreement. Ms., University of Connecticut
Citko, B. 2004. Agreement Asymmetries in Coordinate Structures. In FASL 12. Michigan Slavic Publ.
Franks, S. (1994). Parametric properties of numeral phrases in Slavic. NLLT, 12(4), 597–674
Marušič, F., A. Nevins & W. Badecker. 2008. Experimental Approaches to the Study of Grammar:
　　Agreement and Gender Resolution in Slo. Poster: CUNY 2008 conference. Chapel Hill, NC.
Marušič, F, A. Nevins, & A. Saksida. 2007. Last-conjunct agreement in Slovenian. In FASL 16.
Moosally, M. 1998. Noun Phrase Coordination: Ndebele Agreement Patterns and Crosslinguistic
　　variation. PhD thesis, University of Texas.
Pereltsvaig, Asya. 2006. Small nominals. Natural Language and Linguistic Theory 24: 433-500.